

CLAIM

1. A light steel ceiling rack comprising:

5 a plurality of first frame bars, said first frame bars being T-bars, each comprising two elongated flat base plates attached together, a bottom track longitudinally formed integral with bottom sides of the elongated flat base plates of the respective first frame bar, two first horizontal top flanges respectively outwardly extended from top sides of the elongated flat base plates of the
10 respective first frame bar in reverses directions, two vertical top flanges respectively upwardly extended from the outer sides of the first horizontal top flanges of the respective first frame bar, two second horizontal top flanges respectively inwardly extended from top sides of the vertical top flanges of the respective first frame bar and spaced from each other at a distance, a plurality of
15 hanging holes and a plurality of mounting holes cut through the elongated flat base plates of the respective first frame bar, an end stop flange transversely disposed at each of two distal ends thereof, an end plug strip disposed at each of the two distal ends, and a springy retaining tong provided at each end plug strip of the respective first frame bar; and.

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 a plurality of second frame bars, said second frame bars being T-bars each comprising two elongated flat base plates attached together, a bottom track longitudinally formed integral with bottom sides of the elongated flat base plates of the respective second frame bar, two first horizontal top flanges respectively
25 outwardly extended from top sides of the elongated flat base plates of the

respective second frame bar in reverses directions, two vertical top flanges respectively upwardly extended from respective outer sides of the first horizontal top flanges of the respective second frame bar, two second horizontal top flanges respectively inwardly extended from respective top sides of the vertical top flanges of the respective second frame bar and spaced from each other at a distance, an end stop flange transversely disposed at each of two distal ends thereof, an end plug strip disposed at each of the two distal ends for insertion into the mounting holes of said first frame bars, and a springy retaining tong provided at each end plug strip of the respective second frame bar and adapted to prohibit backward movement of the respective end plug strip from the respective mounting hole into which the respective end plug strip is plugged;

wherein the vertical top flanges of each said first frame bar each have a plurality of U-notches respectively disposed corresponding to the mounting holes of said first frame bars; the second horizontal top flanges of each said first frame bar each have a plurality of trapezoidal notches respectively disposed corresponding to the mounting holes of each said first frame bar and respectively linked to said U-notches; the second horizontal top flanges of each said second frame bar each have each end terminating in a beveled end edge; the first horizontal top flanges of each said second frame bar each have an end projection at each of two distal ends thereof corresponding to the beveled end edge at each end of each of the second horizontal top flanges of each said second frame bar; when inserted one end plug strip of one said second frame bar into one mounting hole of one said first frame bar, the corresponding beveled end edges of the corresponding second horizontal top flanges of the second

frame bar are respectively fastened to the trapezoidal notch of one second horizontal top flange of the first frame bar, and the end projection of the first horizontal top flanges of the second frame bar are respectively stopped at a bottom side of one first horizontal top flange of the first frame bar to enhance the stability of the connection between the first frame bar and the second frame bar and to eliminate the formation of a gap in the connection area between the first frame bar and the second frame bar.

2. The light steel ceiling rack as claimed in claim 1, wherein the two elongated flat base plates of each said first frame bar include a first elongated flat base plate and a second elongated flat base plate, the first elongated flat base plate of each said first frame bar comprising a plurality of raised portions, the second elongated flat base plate of each said first frame bar comprising a plurality of recessed portions respectively forced into engagement with the raised portions of the first elongated flat base plate of the corresponding first frame bar.

3. The light steel ceiling rack as claimed in claim 1, wherein the two elongated flat base plates of each said second frame bar include a first elongated flat base plate and a second elongated flat base plate, the first elongated flat base plate of each said second frame bar comprising a plurality of raised portions, the second elongated flat base plate of each said second frame bar comprising a plurality of recessed portions respectively forced into engagement with the raised portions of the first elongated flat base plate of the respective second frame bar.